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BRIEF DESCRIPTION OF DRAWINGS

[0023] FIG. 1 is a configuration diagram of an MRI apparatus etc. used in the present invention.

[0024] FIG. 2 is a block diagram showing a configuration of a workstation in the MRI apparatus used in the present invention.

[0025] FIG. 3 is a flow chart of a temperature measurement program in accordance with a conventional technique and Embodiment 1 of the present invention.

[0026] FIG. 4 is a conceptual diagram of phase variation due to a temperature change.

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[0027] FIG. 5 shows an amplitude image (A), a phase image (B), a real-part image (C), an imaginary-part image (D), a normalized real-part image (E), and a normalized imaginary-part image obtained from a complex image captured in a certain plane containing a liver of a human subject.

[0028] FIG. 6 is a flow chart of a temperature measurement program in accordance with Embodiments 2 and 3 of the present invention.

[0029] FIG. 7 is a schematic diagram showing a method of attaching an optical positioning apparatus in the method of the present invention.

[0030] FIG. 8(A) shows an amplitude image with a heating needle provided with a marker; FIG. 8(B) shows determination of an imaging plane from the position of the marker; and FIG. 8(C) shows display of a temperature distribution in the determined imaging plane superimposed over the amplitude image. More particularly, FIG. 8(A) shows a microwave heating needle penetrating into a swine liver sample while feeding direct current (15 mA) to a small-diameter coil wound over the needle; FIG. 8(B) shows determination of a plane perpendicular to the needle by detecting a dark point caused by magnetic field inhomogeneity due to the direct